



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

April 10, 2014

Vice President, Operations  
Entergy Operations, Inc.  
Waterford Steam Electric Station, Unit 3  
17265 River Road  
Killona, LA 70057-3093

SUBJECT: WATERFORD STEAM ELECTRIC STATION, UNIT 3 – UPCOMING STEAM  
GENERATOR TUBE INSERVICE INSPECTION (TAC NO. MF3888)

Dear Sir or Madam:

Inservice inspections of steam generator (SG) tubes play a vital role in assuring SG tube integrity. A telephone conference call has been scheduled on April 21, 2014, between staff of the U.S. Nuclear Regulatory Commission (NRC) and Energy Operations, Inc., to discuss the ongoing results of the SG tube inspections to be conducted during the upcoming Waterford Steam Electric Station, Unit 3 refueling outage. This call will occur after the majority of the tubes have been inspected, but before the SG inspection activities have been completed. Enclosed is a list of discussion points to facilitate this call.

The NRC staff will document a summary of the conference call, including any material that you provide to the staff in support of the call.

If you have any questions, please contact me at 301-415-1445 or via e-mail at [alan.wang@nrc.gov](mailto:alan.wang@nrc.gov).

Sincerely,

A handwritten signature in black ink that reads "Alan Wang".

Alan B. Wang, Project Manager  
Plant Licensing IV-2 and Decommissioning  
Transition Branch  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-382

Enclosure:  
Steam Generator Tube Inspection  
Discussion Points

cc w/encl: Distribution via Listserv

APRIL 21, 2014, CONFERENCE CALL BETWEEN  
U.S. NUCLEAR REGULATORY COMMISSION AND ENTERGY OPERATIONS, INC.  
STEAM GENERATOR TUBE INSPECTION DISCUSSION POINTS  
WATERFORD STEAM ELECTRIC STATION, UNIT 3  
DOCKET NO. 50-382

The following discussion points have been prepared to facilitate the conference call arranged on April 21, 2014, between staff of the U.S. Nuclear Regulatory Commission (NRC) and Energy Operations, Inc. (the licensee), to discuss the ongoing results of the steam generator (SG) tube inspections to be conducted during the upcoming spring 2014 refueling outage at Waterford Steam Electric Station, Unit 3. This conference call is scheduled to occur towards the end of the planned SG tube inspections, but before the unit completes the inspections and repairs.

The NRC staff plans to document a summary of the conference call as well as any material that is provided in support of the call.

1. Discuss any trends in the amount of primary-to-secondary leakage observed during the recently completed cycle.
2. Discuss whether any secondary side pressure tests were performed during the outage and the associated results.
3. Discuss any exceptions taken to the industry guidelines.
4. For each steam generator, provide a description of the inspections performed including the areas examined and the probes used (e.g., dents/dings, sleeves, expansion-transition, u-Bends with a rotating probe), the scope of the inspection (e.g., 100 percent of dents/dings greater than 5 Volts and a 20 percent sample between 2 and 5 Volts), and the expansion criteria.
5. For each area examined (e.g., tube supports, dent/dings, sleeves, etc.), provide a summary of the number of indications identified to-date for each degradation mode (e.g., number of circumferential primary water stress-corrosion cracking (PWSCC) indications at the expansion transition). For the most significant indications in each area, provide an estimate of the severity of the indication (e.g., provide the voltage, depth, and length of the indication). In particular, address whether tube integrity (structural and accident induced leakage integrity) was maintained during the previous operating cycle. In addition, discuss whether any location exhibited a degradation mode that had not previously been observed at this location at this unit (e.g., observed circumferential PWSCC at the expansion transition for the first time at this unit).
6. Describe repair/plugging plans.

Enclosure

7. Describe in-situ pressure test and tube pull plans and results (as applicable and if available).
8. Discuss the following regarding loose parts:
  - what inspections are performed to detect loose parts
  - a description of any loose parts detected and their location within the SG (including the source or nature of the loose part, if known)
  - if the loose parts were removed from the SG
  - indications of tube damage associated with the loose parts
9. Discuss the scope and results of any secondary side inspection and maintenance activities (e.g., in-bundle visual inspections, feed-ring inspections, sludge lancing, assessing deposit loading, etc.).
10. Discuss any unexpected or unusual results.
11. Provide the schedule for SG-related activities during the remainder of the current outage.

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Sincerely,

/RA/

Alan B. Wang, Project Manager  
Plant Licensing IV-2 and Decommissioning  
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Division of Operating Reactor Licensing  
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